rain and wind doctors, and Hindoo gods have

just as much to do with the weather as this

weather table, and no more. The barometer

in the hands of those who will watch its va-

riations, is another valuable aid. A rise

from any point in the tube indicates improve-

ment in the weather, and a fall from any

point indicates storm, according to the

amount of the rise and fall. If it falls rap-

is quite low and then falls rapidly, say one-

termed a clearing up shower. The usual

range in this section is us follows: At 30

inches, very fair dry weather; 294 inches.

settled weather; 294, fine weather; 29, va-

riable weather; 28%, rain and moderate wind;

284, much rain and wind; 28, violent temp-

est. This, however, is intended for a guide

and not absolute certainty, and elevation of

more or less than one thousand feet would

change the figures, but not the range, as one

tenth inch of this barometric column answers,

very nearly to one hundred feet in altitude.

In other words should you earry your bar-

vation. But all do not possess barometers,

so as there are other signs of rain as well as

fair weather, I will state a few most easily

the wind blows. A red morning sky is

usually followed by rain. A red evening

probabilities in these cases as true, have been

as ten to one. This proves the old adage

"Evening red and morning gray, Will kelp the traveler on his way; But evening gray and morning red. Will bring down rain upon his head."

vas founded on fact. When the moon

pale in color, with horns blunt at first rising,

the stars seeming large, dull and pale, with

no perceptible twinkle, or if encompassed

with a circle, it indicates an access of moisture

from woodland or water higher than usual in

but if such mists appear after sunset or be-

fore sunrise, it denotes fair and warmer

weather the next day. If the rain commences

an hour or two before sunrise the clouds will

probably be dissipated by the heat of the sun,

and it will clear up before noon. If it com-

mences an hour or two after sunrise it will

be likely to rain all day. A bright moon

with sharp horns, or sharp definition if full,

more to be relied upon than many people

imagine. The lassitude and indefinable anx-

iety of nervous individuals before a thun-

der storm, the shooting pains in old wounds

or scars, the aching and pricking of chil-

blaips and corns, the attacks of headache

or rheumatism, when a considerable change

many sensitive persons to be called living

barometers. But I will not trespass longer

Quality of Apples.-Choice Varieties.

Mr. S. E. Todd said at a meeting of the

New York Farmers' club, that the standard

by which the quality of an apple is judged

consists of the taste and flaver of certain

apples which have been pronounced by pomo-

logists to be the best. Best represents the

acme of excellence in superior taste and in

aromatic flavor. The antithesis of best is

represented by poor, or very poor. Between these two standards there are other stan-

dards, such as fair, good, very good, good to

ment, the Newton pippin, the Esopus Spitsen-

burg, Early Joe, King of Tompkins County,

Wagoner, Peck's Pleasant, and some other

varieties have been designated as the best,

as for taste and aromatic flavor. If one

smells and tastes a Newton pippin at a period

when this variety is in its best season, he

of the quality of any variety of apples. The

others are ranked as good to very good.

H. A. CUTTING.

on your columns to-day but more apon.

### Wermont Enrmer PUBLISHED EVERY PRIDAY BY ROYAL CUMMINGS.

C. HORACE HUBBARD, Agricultural Ed'r. P. O. Address, Springfield, Vt.

Free of Postage to any Point in the Unit

Communications for the Agricultural Department show be addressed to the Agricultural Editor at Springfield, Vt.

Dr. A. M. Diekie of Dovlstown, Pa., has accepted the position of supervisor of poultry at the centennial. The manufacturers and agents at the

West of front and rear cut mowing-machines, are having a lively fight over the comparative safety of their respective machines, and have produced a prodigious crop of lies. Dr. Cook made an entomological exhibi-

tion at the central New York poultry show at lent of about 3,440 quarts), and produced til I was far past my days of apprenticeship. Utica. There were bugs that he paid thirty three hundred and fourteen and a half I find about towns and cities the best places dollars each for. There isn't a bug in Windsor county that couldn't be bought for five

L. B. Arnold states that the butter or fat globules in milk contain eighteen or twenty per cent of water. When the arterial blood becomes deficient in fat globules through the poverty of the cow they become filled with water. He had examined those which contained no oil.

The Fancier's Journal is of the opinion that in feeding fowls we should follow closer to the habits of nature, instead of giving the food in such way that it will be bolted down in a mass, as is often done. It is the natural habit of poultry to roam about all day in search of food, scratching for worms and chasing bugs.

The Massachusetts Ploughman says a hundred and sixty trees being allowed to the and the job is complete. We can commend size, would yield at present prices \$273 an- which is ineffectual and useless. nually. Divide the yield by ten for trees of that age. Would it not then be high?

We have from the Ames Plow Co., Quincy Hall, Boston, and 53 Beekman street, New York, price list of everything needed on a farm a from horse-power and threshing machine down to the smallest implement that is used. This establishment is the largest of the kind in New England, and perhaps in the country, food cropped in low, wet land. The disand their facilities for supplying farmers ease is known as the liver rot. The sheep

Professor Stockbridge says that to 20 bushels of wood ashes use 50 pounds of sulphate of ammonia and you have for six dollars [these materials cannot be bought for six dollars] a top-dressing for an acre of pasture that will last for three or four years. In absence of ashes use 180 pounds sulphate of ammonia, 70 pounds muriate of potash and 100 pounds of good superphosphate, all to be mixed together.

Alexander Hyde says in the New York Times, "we had supposed with the loss of the Carter, the prince among potatoes was dead, but the Snow Finke seems equal to the Carter. The name is indicative of its nature. It is white, light and as tempting as the new fallen snow." This is as good a notice as a potato needs. When it is added that it is hardy and very productive there is nothing more to be said.

The farmers of Poultney take commendable interest in the improvement of horses, and are using the best blood for that purpose. A recent public exhibition of colts and fillies under one year old elicited a good attendance and interest. The first prize for colts was awarded to Dr. Bliss' brown colt, by Blackstone, he by Rysdick's Hambletonian. The first prize for fillies was awarded of the box to make the nest bowl-shaped. to F. M. Moseley's bay, by Daniel Lambert, dam by Parinh's Hambletonian.

Mr. B. J. Stone of Westboro, Mass., steams food for cattle, feeding morning and night, with dry hay at noon. The cost of keeping 16 yearlings and two-year-olds and 17 milch cows is \$4.06 or less than 12 cents Put the eggs under the next night. Exam- atmosphere. His temper, as well as health, each per day, reckening hay at \$20 per ton, ine the eggs every few days, remove broken and fortune, are alike subjects to this despetic corn fodder and straw at \$10. It is estimated by discerning farmers who have visited his place that he makes a saving of 50 per cent. His cows yield a much larger quantity of milk.

Alexander Hyde says in the New York Times that lettuce plants should be placed eight or ten inches apart in the row, and every alternate plant cut out when partially developed, to give the rest room to expand. The custom in farmer's gardens, is to sow the seed so they will stand as thick as grass. Cabbages abound in flesh-forming material. Six cents cannot be invested so as to supply a greater amount of nutriment to a family than in the purchase of a cabbage head. It is too hearty to be eaten freely by people of sedentary habits.

The Boston Cultivator insinuates that our language is not "elegant," because we said it "picks up" Mr. Cheever's assertion that ten varieties of grass in a pasture will produce more feed than one. Sorry to offend our learned centemporary's elegant and cultivated taste. Perhaps midnight researches in the worm eaten pages of Columella and other ancients and bair-splitting gymnastic time for the discovery that there is some- side. thing more important than "clegance" in agricultural literature. Brother Wetherell sticks to the opinion that blue grass pastures in Massachusetts and Verment afford more

asane bospitals, and says it may be traced directly "to incessant care, anxiety and worry, and too little recreation." It is to be We Should Prosper Better if we had our Trade Well Learned. feared that this is too true.

Messra, B. K. Bliss & Sons, 34 Barklay street, New York, issue the Gardener's Almanac and abridged catolugue of garden, field and flower seeds, for 1876, a handsome list seeds. Messra Bliss send us also catalogue of potatoes for seed, with handsome illustrations of the new choice varieties, and

Marengo, Henry county, Ill. Last year he bood since his boyhood days. milked ninety cows and they gave, on an average, 7,395 pounds of milk (the equiva-

eat. The butter sold for thirty-eight cents, making a return of \$119.51 per cow. His The place of a Mr. Hunnswell of Wellesley, cows are natives and grades picked up among near Boston, has seventy-five nores of

G. W. Nichols writes to the Fancier's Journal that lime, sulphur, coal oil or tobacco applied to fowls or their posts or quarters are ineffectual for destroying lice, and very injurious to the fowls. His remedy, which he says never fails, is to wash the fowls in tepid water with a little soap. When dry take lard or oil and rub them thoroughly under the wings, on the head and at the root of the tail, and fumigate the poultry-house with a pound of sulphur poured into a hot iron pan or pot. The maple tree twenty-five years old will yield fumes are a deadly poison. Repeat in a on the average ten pounds of sugar. One few days to kill those hatched from nits, acre, the sugar crop for an orchard of that this system of treatment except the washing

> The American Agriculturist says the liver fluke is the most destructive parasite which affects the sheep. It is oval in form, conical at the head and flattens toward the other extremity. It is highly organized and subsists on the bile. It causes death by obstructing the gall ducts, having entered the liver eyes and skin a yellow color, and the sheep fatten rapidly. The tallow will have a yellow look. In a short time the sheep fails. The skin and eyes become white and bloodless, a watery tumor forms under the jaw, the abdomen is enlarged from dropsy, the wool becomes harsh and easily parts from the skin and the sheep dies, a rotten mass. They are widely distributed among the sheep of America. When the usual red color at the corner of the eyes and under the eye-lid appears look out for this disease.

G. W. Nichols of Springfield, Ohio, writes to the Fancier's Journal not to let bens follow the impulse of nature in selecting nests, but to let art medify and control the natural

First. Have coops to set them apart from the laying stock. They are free from annoyance to or by others, can be fed and con-

Second. Remove the bottom and one end of a box and rest it on the ground for nest. Take an old knife and lower the earth in box, and mix it with clean wood ashes and sawdust, the latter wet with a weak solution of carbonic acid. Pack it around the sides Line it with fine hay enough to simply cover the earth. Pack thoroughly, and it is vermin proof. Put in two or three nest eggs and have plenty of food, water, gravel, ashes or dust, etc., in the coop where she can get it. Shut her in the coop. If she does not go on the nest put her on the first night.

things you should not do. Do not make the nest funnel-shaped, but oles and bits of charcoal.

place and expect any hen to broad them im-

a hen until she is brooding, and fully ready first quarter 664; full moon, 668; last quar-

Navar pull a hen off her nest. Lift carefully by passing your hand under her-

Dr. Hitchcock states that the farmers and | chickens before they are hatched; "accidents | can say without fear of contradiction that aborers rank among the first in numbers in will happen in the best regulated families."

I would not intimate that we are ignorant of all that pertains to our business, yet there is too much ignorance and too few teachers of the best way. When the country was volume of 116 pages, containing among now the settlers had secrets in wood-craft other interesting matter a useful calendar of that aided them, such as coal-burning, shinfarm and garden work, tegether with price gle and basket making, coopering, making salts or potash, and they had a skill in clearing land that in a great degree lightened their labor. I do not plead for a renewal list of premiums (amounting to \$700) offered of the lost arts; they have passed by. We by them for potato crop grown from their now have lands cleared, and a soil to work upon, and it is tilled in sections according to the influence of a few leading minds. A middle-aged farmer can remember the gradof a large dairy is that of Israel Bois of usl change that has come over his neighbor I was not conscious of my ignorance of the

methods of gaining a living from the soil unpounds of butter per cone. His cows come where men get \$80 or \$100 a month, are in in the fall, and are fed one and one-half filled by foreigners, mostly English or Scotch. tons of corn meal each in the year and all I am not qualified to take their places, and the carly cut hay and corn stalks they would among all my Vermont acquaintances I cannot number six that I could recommend. grounds with trees, lawns, views, hedges, flowers, fruit, vegetables, hot-houses, terraes and ponds. It was like enchanted ground. In the beautiful city by the sea, Newport, the places are many where the soil produces the rarest beauty and profit under skillful hands. Is it for your boy or mine to be able to have charge at Maitland's, Belmont's, Waring's, or a hundred other places? Walk away among the berny-handed farmers, and ee acres of strawberries or vegetables; can our sons take charge here? This is not fancy farming, where money is paid out to satisfy whim ; it is the way they pay expenses and make money. Some of these same plain farmers can show you their hot-houses where all winter lettuce, cucumbers and some common things are grown out of their season, because they sell well, and in spring the beds are full of developing plants ready for the open ground at the earliest moment, and in early summer dollars are coined for men

who earn them by intelligent labor. Hon, E. D. Mason of Richmond left his home, and spent days and dollars among the cheese makers of New York state, and the from the stomach. It is taken with the cheese sellers of New York city, and almost

> An item reports a farmer in New Hampshire, who visited the schools of agriculture in France, Germany and other places, came home, and excelled all his neighbors in the amount of his productions and his income.

I am told that a young man and woman, oth graduates of the Iewa agricultural college, married and hired a farm. The papers ridiculed the idea. See your graduates on a hired farm! They bore the notice, and in the fall published the balance sheet, and showed that knowledge had enabled them to make a good income. They continue prosperously in practical agriculture or, if you please, "practical farming," and excel their neighbors.

As boiling salts, shingle and basket makng have passed by as auxiliaries to farmog, and teaming and lumbering are passing by, and systems are changing, there is imperative need that great effort be made to teach young farmers the farmer's trade with

its advanced forms and methods. The grange can aid in this by investigatng and discussing. Take your boys and girls to the grange or to the board of agriulture meetings, to fairs, to the bomes of nurserymen, fruit men, florists, gardeners, poultry men, bee men, fish men, fancy stock men and fancy butter men; give them a chance to learn this great and comprehensive Z. E. JAMESON.

# For the VERNORT PARKER.

Weather Probabilities. Man calls himself "Lord of creation." yet is absolutely dependent upon all the caprices of the weather. He might with greater truth call himself the slave of the ones, wash the others and renew the hay, power. Every change in the atmosphere, Most important are minor matters and a few | while it brings joy to some, brings sorrow to others. As we peruse history we find the destiny of nations has often depended upon bowl shaped. If it is funnel-shaped the hen some unexpected vicinsitude of the weather. cannot turn the eggs, and the upper or out- The signal office of the war department is ide ones will crowd against and crush the doing much to aid the people of our country ower ones. Have the nest full boul shape in gaining an understanding of mateorological [Does not the writer mean just the reverse that has a daily mail, their bulletin of the or not, let him procure a few Newton pippins, blossom. The two acres cut three the outside eggs must lie partly upon the hang it up in for the benefit of all. This is conter ones]. Have the nest free from peb- done for the benefit of agriculture, and a taste and flavor of the varieties named. hatch. Never set a hen if you can discover prepare for them. The Hindoos have their a single louse on her. That louse will soon rain gods, the South Sea Islanders their cties wind conjurers, and the Negroes of Africa with inferior varities, and all were placed in our weather almanaes, and our Herschel's mediately. Let her have a day or so ac- weather tables, one just as good as another. and smell. With only my limited experiquaintance with the nest and its surround- Not many years ago that celebrated Herschel's weather table which Herschel never saw, Never crowd a nest with coarse straw, put | was considered almost infallible, and Thomas n any shape, and expect a favorable result. almanac quite so, but all enlightened people, Never give a hen more than she can cover. unless some whose age has outgrown sci-The entire lot will in time be chilled, as the ence, discard them. For the last 30 years conflicts with modern writers have not left hen in turning them brings them to the out- our storms have taken place without regard Never burry matters, and attempt to set divided as follows: At new moon 660;

ence with apples, I feel confident that could do this without making one mistake. -We do believe in composting in our way of doing it. We use just enough dry earth in our stables every day to absorb the urine from the animals, and render the whole in a to moon's quarters. We have had 2668 storms, suitable condition for handling with six-divided as follows: At new moon 660; tined manure forks. Twice every day the stables are cleaned and the manure and saturated soil go down into the cellar below, ter 676. This shows very plainly that the pretty thoroughly mixed. Here it remains moon has nothing to do with storms. If the till needed on the fields where it is drawn generally received idea were true what litwithout intermediate handling. After it is

Centennial Corn Premioms

Mr. Conrad Wilson of New York city given in a circular to be issued soon by him. great national cereal, Indian Corn, in regard evation of a worn out mowing, having o the fellowing points:

1st. The largest attainable product of helled corn, by weight, from a single grain.
2d. The largest attainable product of idly it indicates wind, if slowly rain: if it shelled corn, by weight, from one acre. 3d. The lowest attainable cost per bushel fourth inch, it indicates wind, with what is

for shelled corn. 4th, The largest attainable product of 5th. The largest attainable product butter from one bushel of corn. 6th. An experiment in corn culture to test

the theory of Prof. Stockbridge. A formula of this experiment will be given in the

Construction of Barns.

A correspondent to the New York World ometer up a hill one hundred feet high, it ble than that which is exposed to the sun, would fall one tenth of an inch for that ele- wind and rain, has been proved by numerous experiments; yet farmers will so construct thrown out of doors where much of its planttood is destroyed and lost. That the liquid observed. Rain may be expected when the manure of animals is worth nine-tenths as sun rises pale, or when after setting clouds much as the solid is admitted by good judges; ascend in the part of the sky from whence yet farmers will so construct their barns that rom one-half to the whole of that manure is

That there is much hard work on a farm sky by fair weather. For 25 years the and not a little that is disagreeable, every farmer knows; yet farmers will so construct their barns that there will be more of both than there need to be. That it is unhealthy to live partly or wholly under ground, needs no argument to prove; yet farmers will so construct their barns that their cows must thus live most of the time that they are fed

in the stable. Whereas, if farmers would so construct their barns with a cemented cellar or basement under the stables for manure, that would then be kept under cover till wanted. in the atmosphere and probable rain. If and could be drawn out whenever convenimists are attracted by tops of hills or moun. ent, all the liquid manure would be saved, tains after clear weather, expect rain in a the stable could be more thoroughly cleaned day or two. In dry weather if mists ascend in one-fourth or one-third the time and with much less hard, disagreeable work than it would be to wheel the manure into the yard the morning, look out for immediate rain, and could be done just as comfortably in stormy as in fair weather, and their cown would have a dry, healthy stable.

To wheel the manure of forty head of cattle three or four rods from the stable takes ten or twelve days longer every six mouths the cattle are stabled over night, than it does to drop it through the floor, to say nothing of the hard, disagreeable work of wheeling in through the mud or suow or on a line of planks to the heap.

A tight stable floor, one or two small wind shifting north; a sky full of bright windows on each of two sides of the cellar, twinkling stars, small clouds at north and and a ventilator from the cellar up through from the manure into the stable. The beneheaps, denote colder weather. The same fits of cellars or basements under stables for with clouds and wind shifting south indicate | manure, and the objections to keeping catwarmer weather. The weather prognostics tle in them, are like the goods the merchant advertised for sale, "too numerous to mention."

A year ago last January I called upon derived from the animal kingdom are often one of my neighbors who keeps about 25 cows, that were then eating hay in an open I asked him why he fed his cows there

instead of in the stable : he said that it was poor hay, and they ate it better there than the stable; that they had all the good hay they would eat before they were turned out. of the weather is about to take place, entitle again and his cows were in the stable for the night. It is a basement half under ground, the sill on one side being level with the yard, and a wall up to the barn floor on the other; usual doors and windows on one side. Two rows of cows were standing lengthwise of the stable their heads towards each other with an alley between; another row across one end, and his horses at the other. Thus they stood surrounded by their own manure, breathing and re-breathing the air over

I referred to the conversation a year ago, and asked if he could give a reason for his cows cating that poor hay so freely after eat ing all the good hay they would in the stable He replied, "I cannot, I only know it was poor hay, had been overflowed with water, and was very dirty." I gave him this explanation: Your cows after being fed in this stable a few hours, breathing this damp air filled with the odor of their own manure lose all appetite for food, for their lungs and nouths are filled with the foul air, even to tasting, and they cannot cat. After being out of doors a while, cleansing their lungs and mouths with pure air, their appetites returned and they were hungry enough to

will be able to understand what constitutes the highest standard or best, when judging Is milk perfectly her Is milk perfectly healthy that is manufactured in such stables? Northern Spy is judged to be very good to best. The Fameuse is almost best. The ORCHARD GRASS-Mr. Harvey Smith o Red Winter pippin, Red Astrachan. Ben Montgomery county, has been treating a cream. Perhaps it would be more correct to say that a low temperature is the exciting three years, with eminent success. On the or immediate cause, just as a cold may be The Baldwin, Rhode Island Greening, Yellow Bell Flower and Wine Sap are ranked grass seed and eight quarts of clover seed to human patient. as very good. The white Astrachau and the acre. The land was in the finest poss-Red Winter Calville are ranked as poor ible condition, and black-I may say jet apples. From poor, the gradation declines black-composed largely of muck or vegetato very poor, worthless eider apples, which ble matter. The season was dry, and it was neither man nor beast will eat unless half feared there would be a failure; but the udder until it is digested in the stamach der, and their wool was very fine. famished. Now, if one desires to determine grass appeared, grew at once, and even if it does not hold quite so many. forces, and to every post office in the land, whether an apple is one of the best varieties middle of July was cut, the crop not yet in of what he says? In a "bowl shaped nest weather is furnished free, and a frame to or Esopus Spitsenburgs, when these varieties of the finest possible (dried) feed. The are at their best season, and then compare clover had merely obtained a footing, and the taste and flavor of his fruit with the contributed nothing to the crop, the grass taking the lead of the clover. person reading these bulletins will frequently A competent judge of the quality of an apple that followed was very rapid, and in a short Never grease the hen before or while set- notice the progress of storms days before must be possessed of an educated taste and edu- time fit to cut again; but it was desirable ting, to kill vermin. Greased eggs will not they burst upon us, and is thus enabled to dated offactories. Pomologists rely quite as to see what effect it would have as pasture, much on the sense of smell as taste when so the stock was turned in and luxuriated testing fruit. If a score or more known vari- and thrived upon it. To-day, the last of of good and best apples were mingled during the entire season being kept back, Never put a nest full of eggs in a strange their rain doctors, and previously we had lect every one of the good varieties, and iden-

tify them all correctly, simply by the taste MURRAY RADS THE FARMER'S KNUCKLES. -We take the following from the Golden Rule; "We never knew a farmer to take an ax or a beetle and go round and break a wheel here and knock in a brace there, and crack this section and clip that one, among his farm machines, wagons and implements grasses. It has never been our good fortune to see such a pasture; their existence
may be common, but is believed to be exceptional.

It has never been our good fortune to see such a pasture; their existence
ceptional.

It has never been our good fortune to see such a pasture; their existence
their existence
their existence of the original and the rough handling of the difference there is goes directly against thoroughly by repeated cultivation in the soil.
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Plowing in Green Crops.

A lady correspondent of the New England ffers premiums for corn to be exhibited at Farmer, left a widow at the head of a large the centennial, the details of which will be family and in charge of a farm, in Franklin, Mass., inquires as to the expediency of plow-The object is to test the possibilities of our ing in rye and other green crops for the renhire the help and the team for the work, In his reply, the editor, Mr. Cheever, says

among other things. In this case we have no means of knowing

whether the inquirer has good or poor land, whether her children are young or nearly grown, whether they are girls or boys, no whether she has capital to expend upon the land or not, all of which are important quesions and having a direct bearing upon the ase. If the family is made up partly of healthy, ambitious boys who are soon to take hold and make the farm yield generous re-turns for their toil; if the land is naturally good, and capital enough can be commanded to work the farm "conomically, then it may pay to work over such worn out land and keep it from growing up to wood or brush, until it can be handled to better advantage. But that there is much prospect of realizing an immediate return for the capital expended

> in raising green crops to be plowed hired teams, we do not believe.
>
> In the vicinity from which you write, hay and other forage crops are as dear as in any place in New England with which we are familiar, and the farmers find it to their advantage to use up all their fodder at the barn instead of plowing it under in the field. In this way they expect to obtain a profit quite as much value left in the maoure as if the whole had been plowed under in the field, and to us this seems much the better way. We raise rye every year for feeding stock, and sometimes for the grain and straw, finding it a profitable crop when grown upon

We do not believe in growing crops on land that is not fertile. The labor expenses are all out of proportion to the crops grown. t costs no more to plow a field for a large han for a small crop. The difficulty in this suse seems to be, not so much to know what to sow or seden to sow it, as whether to now at all. We like farming better than any other business we ever knew anything about and we like to assist others whenever it is in our power to do so, either by giving advice, or by showing what others have done, but there are some cases where it seems almost impossible to offer advice that will be at all

We believe it will prove true, as a rule, hat ordinary worn out lands in New England will not pay for working, if one must depend wholly upon hired labor and hired teams. \* \* "Having reduced the cost of laborto the lowest possible point, we would next see f there is not some way in which fertilizers can be applied in sufficient quantity to produce a paying crop, one that would pay for the plowing, seed, fertilizers, etc., and thus change the experiment from one of expense to one of profit.

If that rye grows well the coming spring, replace its value by purchased fertilizers It has always seemed to us like a slow and an expensive process to bring up the fertility green stuff, as rye, buckwheat, clover, etc. We like to fill the soil with vegetable matter to increase its fertility, but prefer to do so by producing crops so large that the roots and stubble will do this without adding the tops also. It would seem far better, and certain more prefitable, if, by growing ten tons o green matter on an acre, including roots and tops, four tons could be left in the soil in the form of roots and stubble after removing six tons of tops, than if the whole crop only weighed four tous. We never liked this system of manuring land by plowing in the crops grown. It does not seem exactly a iness-like way of farming. It is round-about, and puts the results too far off from the means. We want to turn our cap-ital often, but don't like to turn it just for the sake of turning, without yielding any will increase the fertility of the soil, but unless it increases that fertility more than the cost of producing it, we can see no profit in the operation.

# Bitter Cream.

Simply covering pure sound cream in a clean tin pail, will not of itself cause bitterness nor fermentation in the cream it coutains; on the contrary, keeping it from con tact with the oxygen of the air would have a tendency to retard changes rather than has ten them. Cream is very seldom bitter in the summer, nor would it often be in winter if the milk was kept at a temperature as ble to state just what causes bitterness in each specimen of butter or mess of cream netimes it may be caused by weeds or poor feed eaten by the cows, but much oftenbushels of the exciting cause of a fit of sickness in the fleece of this sheep was of exceeding fineness; It must be remembered that milk is a com

> composed by the usual process of decay. Milk contains not only fat, curd, sugar, and water, but also several essential oils which may add to or take from its agreeable flavor, cording to the conditions they may be in. It also often contains germs of fungi which, under certain conditions, may injure its fla-These little vegetable growths are liable to increase with great rapidity, when the conditions are favorable, and thus to destroy counteract the germ. As milk is often kept in warm rooms, the souring process begins so soon that the milk is protected from the effects of gorm growth. Heating or freezing milk will also prevent growth for the time being. That change in milk which produces bitterness can go under a much lower temperature than is required for producing sourdetail all the different changes to which milk is subject while the cream is rising, we may, perhaps, make the subject a little clearer by

early winter, and before the milk is removed to winter quarters, that the questions begin to come in, "Why don't the butter come?" and "What makes the cream bitter ?" It is possible there may be milk so pure that a ow temperature would not cause bitterness in forty-eight hours, but we believe such milk is very scarce. The only perfectly sure prerentive we have noticed is to heat the milk to 130 o as soon as it comes from the stables. People who do that seldom have any rouble of this kind .- New England Farmer.

#### The Happiness of Labor.

f labor are from the Vermont Watchman, Unintelligent drudgery is simply pain. Drudgery is ennobled into true labor by the influx thereto of intelligent action and noble purpose. In our common farm labor there is much drudgery. The object of the diffusion of knowledge among farmers and farm laborers is to infuse this drudgery with the light and heat of intelligence, and thus transform pain into pleasure. If to this, by the power of the gospel, unselfish purpose can be added, we should say that between idleness and labor "there is all the difference etween earth and heaven."

ditching, or plowing, as an illustration. The bodily work of ditch-digging with a spade is hard. We know it is hard. As it is performed by an unintelligent laborer it is pure lrudgery, and if he be compelled to it against his will, or is overworked at it, is hell earth-the primal curse without mitigation But let it be done by a vigorous, healthy man, with his frame toughened by early drill in lighter work; let him start at it with a full considuaness of useful purpose, and a forecasting knowledge of useful results; let him have in possession so much of science as to be able to apply his own work, and the resources at his command in the way of tools, trained animals and natural forces, to the best advantage, and we know that the whole task is full of delight. Men have even taken a gang of ignorant hands into a swamp to drain it, and have, by stimulating their powers of thought, through the simple explanation of principles and natural laws, and their demonstration in rapidly achieved and perfectly attained results, inspired them with the pleasure of work. And surely, if "a thing of beauty is a joy forever," ought not the sight of a worthless waste, transformed by one's own hands into a fruitful field, be a perpetual source of enjoyment?

#### Prices-Raise Better Steers.

The prices of beef cattle have been a litdown of late, owing to the fact that a great many inferior cattle have gone forward to market. The prices on these are low, and of course an excess of poor beef acts upon the rates for good steers, as during hard times, many will buy inferior cuts from bullocks of low grade, that would not touch such but for the pressure. The breed-er or feeder who handles only the best. is fortified in a great measure, against damage from depression in/prices, because his steers have fed profitably, and a slight fall still leaves him a good price, and this with his heavy weights, foots up well when the seales and glate are brought into requisition. But in the case of the low priced steer, a fall of one or one and a half cents per pound, leaves a meagre balance, because the ior bullock has eaten just as expensive feed as the other, and just as many teams and men are required to haul his feed to him, and his pound of poor flesh has cost just as much to haul to market, as that which sells at the highest figure. In the one case the feeder gets a fair price for the corn fed out, and a tolerable profit beside, and in the other he has the unsatisfactory consolation of knowing that he gets 15 to 20 cents for his corn, and markets it inside of the hide of a steer that he is ashamed to take to market, in place of selling his corn to a

No man should be satisfied with the mere fact that he is feeding his grain to steers and swine. He is partially doing his duty by so doing, but fully doing it only when this feeding is done to the better class of stock. When he goes into the market to buy a plow, wagon or reaper, he makes straightway to the man who is reported as having the best, and is very exacting that what he buys contains all the latest improve ments. Now we have only to suggest that he apply this rule to himself, keeping pace with the times by improving that which he putteth his hand to. This is a rule which works both ways, and pone is more fair than this .- Western Farm Journal.

## Antiquity of the Spanish Merino. The Romans were nothing but woolen

goods. They had no cotton; they had a lit-

tle linen, which was worn as a material of high as 65 °, day and night. It is impossi- luxury; they had no silk. They cultivated sheep with great care, and some of their richest possessions were in sheep. But there was one breed of sheep which they cultivated with great care, and by that system of selecer it is indirectly caused by a low tempera- tion which Darwin speaks of as the source ture of the milk during the rising of the of the perfected forms of our domestic ani-It was called Tarentine sheep, from Tarentum, a city of Greek origin, situated at the head of the Tarentine gulf. The it was of a great delicacy, and the prices clothed in cold weather to keep them warm; constant changes from the moment it leaves and the result was that they were very tenwere a product of Greek civilization transmitted down to the Romans. Columella, the great Roman agriculturiat, says that his uncle, residing in Spain, crossed some of the fine Tarentine sheep with some rams that great luxuriance and also in Utah. We had been imported from Africa; and the consequence was that these animals had the three or four crops were taken in a season. whiteness of fleece of the father with the fineness of fleece of the mother, and that race was perpetuated. Here we see an improvement of the stock, an increase of strength or entirely change the character of milk and productiveness given to the fine wool growth, and in the summer, souring tends to sheep of Spain. At that time the sheep of Spain were of immense value; for Strabo says that sheep from Spain, in the time of Tiberius, were carried to Rome, and sold for the price of a talent (one thousand dollars) a head. In the time of our Saviour, a thousand dollars was given in Rome for a soil for the roots to strike down into. Spanish sheep. When the barbarians inun-dated Italy, these fine-wool sheep were all ness. So, without attempting to explain in swept away; but they remained in Spain. year than our farmers are willing to give to They were cultivated by the Moors in the it. Innerne needs a fine, free, well-tilled mountains of Spain, which were almost insoil and will not codure rough usage. It is accessible, and were not reached by the most excellent either for hay or for a soiling —that is, unless he was drunk! But some comparing the two conditions of sourness and of them—pretty good farmers, too, in most things—get about the same results in a out. Temperature is to milk as a switch to of the Roman possessions. They continued by cattle. It is entirely different, also, from roundabout way. They store the mowing- a railroad track. If the temperature is low, to be nourished there by the Moors, who were Hungarian grass and is not to be compared machine in a leaky shed, where it is used as but not low enough to prevent all action, very much advanced in art, and further on with that. Hungarian is an annual. a turkey roost; the lighter instruments are which would be at or near the freezing point, were found there as the Spanish Merino. So kept where the stable fumes spoil the varu-ish; and a general slip-shod style knocks off condition of bitterness, just as sure as there if not the only, is at all events by far the fifty per cent, from the value of the farming are any fungoid germs in it, but if the tem- most important relie that we have to-day

The Narragansett Turkey.

The Rev. Mr. Clift (Tim Bunker) writes to the Poultry World, that the Narragan-sett Turkey is one of the largest and hardiest of all the breeds of turkeys, and is raised in the greatest perfection in Southeastern Connecticut and in Rhode Island, a region famous for its fine poultry. Turkeys remarkably well along the senboard, and almost every farmer remote from the village has his flock, and flocks of from 100 to 200, the product of about a dozen hens, under the skillful management of a woman or boy; of course they do some damage to grain, These happy thoughts on the happiness but this is counterbalanced by their destruction of insects. From June to September they subsist mainly on grasshoppers, crickets and other insects, ranging for the most part in the pastures and woodlands. They are fattened in October and November, and is not uncommon for a lot of early turks to reach the average weight of 14 lbs., dressed at Thankagiving and Christmas. The com-mon run of turkeys sent to the New York market do not average more than 8 or 9 lbs. The Narragansett is a very large, healthy bird, and has been bred for size for many genera-tions. Most of them sold in the Boston and Providence markets under the name of Rhode Island turkeys, or extra No. 1, are of this breed. The farmers are careful in the selection of their breeding stock, taking young gobblers that will weigh from 22 to 28 lbs., and hens that will weigh from 12 to 16 lbs. Where kept over, gobblers will sometimes dress 32 to 34 lbs. For making poultry for market, the Narragansetts have no superior. The prevailing colors are white and black, with a large patch of white upon the wing bow, giving the general impression of a gray bird. They are not uniform in the shading, but with sufficient painstaking, could be bred to a feather.

#### Agricultural Questions.

The Hampden, Mass., Harvest club are liscussing the following subjects at their winter meetings;

Farming, a sufficient field for a laudable ambition. The value of science as applied to practical farming. Grass and forage crops. Potato culture. The best roots for farm stock. The most economical sources of supply of plant food. The best food and cloth ing for farmers' families. The economical feeding of farm stock. Rotation or the best succession of farm crops. Axioms in regard to poultry. Can pork be made by common farmers at a profit? Economy in the use of fuel. The growing and preserving of fruit. Feeding for beef. Growing, curing and selling tobacco. The advantages of thoroughbred over grade or native cattle. The improvement of cattle shows. The wants, trials and advantages of a farmer's life. But

ter dairying. Milk dairying.

The Westminster farmers club have the following: 1. How shall we improve the farm and increase the purse of the farmer? 2. That the legislature ought to enact a law for the protection of fish, game, and small fruit to the land owners exclusively. 3. What are the causes and cure of the present depression of the agricultural interest? 4 The plow, when and how used. 5. Best operation in fencing in instead of out. 8. looperation in beautifying roads and lanes

# Care of Stock.

The Live Stock Record says: There is robably more loss sustained by farmers brough carelessness than from almost any thar cause, and hence the importance of forming careful habits. No bountiful in quantity or good quality, the food for stock may be, if they have not sufficient protection or shelter from the severe winter winds an' cold rains, the loss, if of life, will necessarily be very considerable.
If a man will but observe the effects of cold rains on hogs, cattle and horses, he will certainly observe the necessity of shielding them from it. It is impossible that the normal processes of digestion and assimilation of ood can proceed regularly when the animal is exposed to all the severities of the weather. No doubt this is one reason why domestic preeds so rapidly degenerate when put from the care of man. It is no uncommon thing to see farmers' stock houses wretchedly out of repair—the winds whistling through them, and the rains driving into them, making them damp, piercing, cold. Then it is very often the case that hogs have no shelter other than they can find themselves. The qualities of animals thus exposed must inevitably degenerate, so that loss is sustained, although it may escape the observation of the stupid farmer, who supposes that man alone needs protection from the weather. From this one cause many a farmer loses hundreds of dol

ars every year. But domestic animals are subject to the ame discases as man-pueumonia, typhoid ever, inflamation of the bowels, etc. diseases are produced by similar or the same causes as in man. Much sickness and death If live stock may be prevented by judicious eeding, shelter and hygienic care. often ascribed to bad luck, ought in truth to be ascribed to the slothful habits and igporance of farmers. Nature commits the domestic animals to man as a part of his stock in trade; but the laws of animal life and healtn are not suspended, and the farmer whose procedure violates these laws, must pay for his ignorance or carelessness in money or its equivalent.

LUCEUNE.-Lucerne requires light land, and more especially a light and porous subsonable success. It grows in California with have seen immense fields of it from which It is a delicate plant to get started and requires eareful attention the first year; after that, when it is well rooted, it remains in the soil many years. If you should sow it in drills and cultivate it a little to keep down the weeds, you can get a crop the second year, two or three crops, in fact, as it grows

Lucerne is the same as Chilian clover. It would flourish in Florida, anywhere South where there is a loose, wet and perous subnot cultivated extensively here, chiefly because it requires more eareful labor the first erop to cut green and feed out, equal in nu cerne, when once well set, will last ten or fifteen years or more.-Mass. Ploughman,

The British government announces its in-